

## REMARKS/ARGUMENTS

### **I. General Remarks**

Applicant hereby requests continued examination of this application, in accordance with 37 C.F.R. § 1.114. Applicants respectfully request consideration of the claims in light of the amendments and remarks contained herein.

### **II. Disposition of the Claims**

At the time of the Final Office Action, claims 77-88 and 91-112 were pending in this application. Claims 1-76 and 113-186 were canceled in response to restriction requirement. Claims 77-88 and 91-112 are rejected. Claims 77, 81, 84, 86, and 87 have been amended herein, and claims 91-106 have been canceled herein. Claims 114-130 have been added herein. Applicants respectfully submit that these amendments and new claims add no new matter to the application and are supported by the specification as originally-filed. All the above amendments are made in a good faith effort to advance the prosecution on the merits of this case.

### **III. Remarks Regarding Rejection of Claims under 35 U.S.C. § 102(b)**

Claims 77-86, 88, 91-100 and 102-112 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,532,052 issued to Weaver *et al.* (hereinafter "*Weaver*"). With respect to this rejection, the Examiner states that:

In response to Applicants arguments that Weaver is instead directed to a hydrophobically modified polymer that increases permeability of the subterranean formation to aqueous-based fluid, although the cited passage by Applicant does disclose an aspect of Weaver's method of treating a well that uses said polymer to increase formation permeability (col. 7, lines 43-52), Weaver further discloses other embodiments of said method involving adding the disclosed hydrophobically-modified polymer to reduce permeability to aqueous fluids. See, e.g., Abstract ("[t]reatment of the earthen formations with the compositions of this invention can substantially modify the permeability and surface characteristics of the formation to prevent or reduce the flow of aqueous fluids, especially water and formation brines through that portion of the formation.")...

(Final Office Action at 3-4.) Applicants respectfully disagree. *Weaver* does not disclose every element of claims 77-86, 88, 107-112 as required to anticipate these claims under 35 U.S.C. § 102(b). See MPEP § 2131.

In particular, *Weaver* does not disclose a "hydrophobically modified water-soluble polymer that comprises polar heteroatoms within the polymer backbone, wherein the

hydrophobically modified water-soluble polymer reduces the permeability of the subterranean formation to an aqueous-based fluid,” as recited in independent claim 77. Rather, *Weaver* discloses hydrophobically modified polymers that increase the permeability of the subterranean formation to aqueous-based fluids. In particular, *Weaver* provides that:

In yet another aspect of the invention, another class of polymers can be prepared which have some hydrophobic and/or oleophilic portions, branches or overall nature so that these polymers can be attached to formations or suspended within fluids in the formation to produce a surface effect on the particles or formation which retards the flow of organic fluids or hydrocarbon fluids and increases the permeability of the formation to aqueous fluids or would tend to gel hydrocarbon or organic based fluids.

*Weaver*, col. 7, lines 43-52, emphasis added. Therefore, *Weaver* discloses that polymers with hydrophobic portions increase the permeability of a formation to aqueous fluids, and as such, *Weaver* does not disclose a “hydrophobically modified water-soluble polymer that comprises polar heteroatoms within the polymer backbone, wherein the hydrophobically modified water-soluble polymer reduces the permeability of the subterranean formation to an aqueous-based fluid,” as recited in independent claim 77.

Moreover, as depicted clearly in the table in Columns 9 and 10, *Weaver* repeatedly emphasizes that the use of hydrophobically modified polymers is only to increase water permeability. Contrary to the Examiner’s assertions in the Final Office Action, nowhere does *Weaver* disclose a hydrophobically-modified water-soluble polymer that reduces permeability to aqueous fluids. Rather, the portions of *Weaver* that disclose polymers containing hydrophobic modifying portions relate to increasing the permeability of the formation to aqueous fluids. (See *Weaver*, col. 7, lines 43-52 and col. 9 and col. 10, lines 1-23.) Even more so, the table in Columns 9 and 10 clearly indicates that polymers containing hydrophobic modifying portions are soluble in organic solvents rather than in aqueous fluids. Applicants’ independent claim 77 requires a hydrophobically modified water-soluble polymer.

Similarly, with respect to the reduced flow of aqueous fluids, *Weaver* discloses that a branched polymer containing hydrophilic branching should reduce the formation’s water permeability. *Weaver*, col. 10, lines 3-25; col. 15, lines 63-66; col. 19, lines 13-17. For example, *Weaver* explicitly provides that “[f]or one preferred class of polymers used to reduce the flow of water through earthen formations or to reduce the production of water in an oil well, the branched chain and overall polymer should be hydrophilic.” *Weaver*, col. 19, lines 13-17

(emphasis added). Accordingly, *Weaver* does not disclose or suggest the use of hydrophobically modified water-soluble polymers to reduce water permeability, and thus does not disclose every element of independent claim 77.

Therefore, Applicants respectfully assert that independent claim 77 is not anticipated by *Weaver*. Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 102(b) rejections as to independent claim 77 and its dependents, claims 78-88 and 107-112.

#### IV. Remarks Regarding Rejection of Claims under 35 U.S.C. § 103(a)

Claims 83, 86-88, 96-98 and 100-101 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Weaver* in view of U.S. Patent No. 6,358,889 issued to Waggenpack *et al.* (hereinafter "*Waggenpack*"). Applicants respectfully disagree. As discussed above in Section III, *Weaver* does not teach each and every limitation of claim 77, from which claims 83 and 86-88 depend. Nor can *Waggenpack* be used to provide the missing limitations. Accordingly, Applicants respectfully request withdrawal of this rejection with respect to claims 83 and 86-88.

#### V. No Waiver

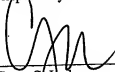
All of Applicants' arguments are without prejudice or disclaimer. Additionally, Applicants have merely discussed example distinctions from the cited references. Other distinctions may exist, and Applicants reserve the right to discuss these additional distinctions in a later Response or on Appeal, if appropriate. By not responding to additional statements made by the Examiner, Applicants do not acquiesce to the Examiner's additional statements, such as, for example, any statements relating to what would be obvious to a person of ordinary skill in the art. The example distinctions discussed by Applicants is sufficient to overcome anticipation and obviousness rejections.

#### SUMMARY

In light of the above remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicits timely notice of the same. Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

The Commissioner is hereby authorized to debit the Deposit Account of Baker Botts L.L.P., Deposit Account No. 02-0383 in the amount of \$790.00 for the RCE fee under 37 C.F.R. § 1.117(e). However, should the Commissioner deem that any other fees are due, including any fees for extensions of time, Applicant respectfully requests that the Commissioner accept this as a Petition Therefor, and direct that any additional fees be charged to Baker Botts L.L.P. Deposit Account No. 02-0383, Order Number 063718.0321.

Respectfully submitted,



Carey C. Jordan  
Registration No. 47,646  
BAKER BOTTS L.L.P.  
One Shell Plaza  
910 Louisiana  
Houston, TX 77002  
Telephone: 713.229.1233  
Facsimile: 713.229.7833  
Email: carey.jordan@bakerbotts.com

Date: January 2, 2007